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Proposed Maximum Residue Limit PMRL2016-42

S-metolachlor

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Publications
Pest Management Regulatory Agency
Health Canada
2720 Riverside Drive
A.L. 6607 D
Ottawa, Ontario K1A 0K9

Internet: pmra.publications@hc-sc.gc.ca
healthcanada.gc.ca/pmra
Facsimile: 613-736-3758
Information Service:
1-800-267-6315 or 613-736-3799
pmra.infoserv@hc-sc.gc.ca

Canada

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Under the authority of the *Pest Control Products Act*, Health Canada's Pest Management Regulatory Agency (PMRA) has concluded that the addition of new uses on various commodities to the product labels of DUAL II Magnum® Herbicide and DUAL Magnum® Herbicide, containing technical grade S-metolachlor, is acceptable. The specific uses approved in Canada are detailed on the labels of DUAL II Magnum® Herbicide and DUAL Magnum® Herbicide, *Pest Control Products Act* Registration Numbers 25729 and 25728, respectively. DUAL II Magnum® Herbicide also contains the safener benoxacor. Maximum Residue Limit (MRL) consultation for the benoxacor present in DUAL II Magnum® Herbicide is being conducted under a separate action.

The evaluation of this S-metolachlor application indicated that the end-use product has value and the human health and environmental risks associated with the new uses are acceptable.

Before registering a pesticide for food use in Canada, the PMRA must determine the quantity of residues that are likely to remain in or on the food when the pesticide is used according to label directions and that such residues will not be a concern to human health. This quantity is then legally established as an MRL. An MRL applies to the identified raw agricultural food commodity as well as to any processed food product that contains it, except where separate MRLs are specified for the raw agricultural commodity and a processed product made from it.

Consultation on the proposed MRLs for S-metolachlor is being conducted via this document (see Next Steps, the last section of this document). A summary of the field trial data used to support the proposed MRLs can be found in Appendix I.

To comply with Canada's international trade obligations, consultation on the proposed MRLs is also being conducted internationally by notifying the World Trade Organization, as coordinated by the Canada's Notification Authority and Enquiry Point.

The proposed MRLs, to replace or be added to the MRLs already established for S-metolachlor, are as follows.

Table 1 Proposed Maximum Residue Limits for S-metolachlor

Common Name	Residue Definition	MRL (ppm)[1]	Food Commodity
S-metolachlor	2-chloro-*N*-(2-ethyl-6-methylphenyl)-*N*-[(1*S*)-2-methoxy-1-methylethyl)acetamide, including the metabolites 2-[(2-ethyl-6-methylphenyl)amino]-1-propanol and 4-(2-ethyl-6-methylphenyl)-2-hydroxy-5-methyl-3-morpholinone	0.8	Oriental radish tops
		0.6	Parsnip roots
		0.5	Cucurbit vegetables (Crop Group 9)[2]
		0.3	Edible-podded soybeans, oriental radish roots
		0.1	Leaf petioles vegetables (Crop Subgroup 22B)

[1] ppm = parts per million

[2] The proposed MRL of 0.5 ppm will replace the currently established MRLs of 0.13 ppm for cucumbers and 0.10 ppm for melons (CSG 9A), pumpkins, and winter squash and will establish new MRLs for the remaining crops in Crop Group 9.

MRLs are proposed for each commodity included in the listed crop groupings in accordance with the Residue Chemistry Crop Groups webpage in the Pesticides and Pest Management section of Health Canada's website.

MRLs established in Canada may be found using the Maximum Residue Limit Database on the Maximum Residue Limits for Pesticides webpage. The database allows users to search for established MRLs, regulated under the *Pest Control Products Act*, both for pesticides or for food commodities.

International Situation and Trade Implications

The MRLs proposed for S-metolachlor in Canada are the same as the corresponding American tolerances as listed in the Electronic Code of Federal Regulations, 40 CFR Part 180, by pesticide with the exception of parsnip roots. There is no corresponding American tolerance as listed in the Electronic Code of Federal Regulations for Oriental radish tops. Currently, there are no Codex MRLs[1] listed for S-metolachlor in or on any commodity on the Codex Alimentarius Pesticide Residues in Food website.

Table 2 compares the MRLs proposed for S-metolachlor in Canada with corresponding American tolerances and Codex MRLs.

Table 2 Comparison of Canadian MRLs, American Tolerances and Codex MRLs (where different)

Food Commodity	Canadian MRL (ppm)	American Tolerance (ppm)	Codex MRL (ppm)
Parsnip roots	0.6	0.3 (Vegetable, root, except sugar beet, subgroup 1B, except carrot)	Not Established

Next Steps

The PMRA invites the public to submit written comments on the proposed MRLs for S-metolachlor up to 75 days from the date of publication of this document. Please forward your comments to Publications (see the contact information on the cover page of this document). The PMRA will consider all comments received before making a final decision on the proposed MRLs. Comments received will be addressed in a separate document linked to this PMRL. The established MRLs will be legally in effect as of the date that they are entered into the Maximum Residue Limit Database.

[1] The Codex Alimentarius Commission is an international organization under the auspices of the United Nations that develops international food standards, including MRLs.

Appendix I

Summary of Field Trial Data Used to Support the Proposed Maximum Residue Limits

Residue data for S-metolachlor in cantaloupe, celery, parsnips, summer squash, and whole snap beans were submitted to support the domestic use of DUAL Magnum® and/or DUAL II Magnum® on celery, edamame, parsnips, and cucurbit vegetables. In addition, previously reviewed residue data from field trials conducted in/on carrots, cucumbers and radish were reassessed in the framework of this petition.

Maximum Residue Limits

The recommendation for the maximum residue limits (MRLs) for S-metolachlor was based upon the field trial data submitted and on file, and the guidance provided in the OECD MRL Calculator. Table A1 summarizes the residue data used to calculate the proposed MRLs for edible-podded soybeans, Oriental radish roots and tops and cucurbit vegetables.

Table A1 Summary of Field Trial Data Used to Support the MRLs

Commodity	Application Method/ Total Application Rate (kg a.i./ha)[1]	Preharvest Interval (days)	Lowest Average Field Trial Residues (ppm)	Highest Average Field Trial Residues (ppm)
Cantaloupe	Foliar broadcast/ 1.42–1.49	27–33	<0.13	<0.322
Carrot roots	Preplant incorporated application/ 1.46	70–171	<0.08	0.22
Celery	Foliar broadcast/ 1.53-1.69	59–63	<0.101	<0.101
Cucumbers	Foliar broadcast/ 1.12–1.44	32–38	<0.13	<0.13
Parsnip roots	Foliar broadcast/ 1.57–1.64	57–63	0.101	0.106
Radish roots	Preplant incorporated and soil surface spray application/ 1.46	26–48	<0.08	<0.08
Radish tops	Preplant incorporated and soil surface spray application/ 1.46	26–48	<0.12	0.42
Summer Squash	Foliar broadcast/ 1.30–1.36	21–36	<0.13	<0.13
Whole snap beans	Foliar broadcast/ 2.11–2.27	49–50	<0.10	0.21

[1] kg a.i./ha = kilograms of active ingredient per hectare

Following the review of all available data, the MRLs as proposed in Table 1 are recommended to cover residues of S-metolachlor. Residues of S-metolachlor in these crop commodities at the proposed MRLs will not pose an unacceptable risk to any segment of the population, including infants, children, adults and seniors.